

SEQUENCE LISTING

<110> Majumder, Arunendra
Manoj, Majee

<120> A salt tolerant L-myo-inositol 1-phosphate synthase
and the process of obtaining the same

<130> 4544-051674

<140> US 10/538,423

<141> 2005-06-10

<150> PCT/IN2003/000065

<151> 2003-03-21

<160> 3

<170> MicrosoftWord 2003

<210> 1

<211> 1536

<212> DNA

<213> Porteresia coarctata

<220>

<400> 1

atgttcatcg agagcttccg cgtggagagc ccgcacgtgc ggtacggcgc
ggcggagatc 60

gagtccggagt accggtaga cactacggag ctgggtgcacg agagccacga
cggcgccctcg , 120

cgcgtgggtcg tccgccccaa gtccgtccag taccacttca ggaccagcac
caccgtcccc 180

aagctcgggg tcatgctcgt ggggtggggc ggcaacaacg gctcaacgct
gacggctggg 240

gtcatcgcca gcagggaggg aatctcatgg gcgaccaagg acaaggtgca
gcaagccaac 300

tactatggct cactcaccca gggtccacc atcaggtag gaagctacaa
cggggaggag 360

atctacgcgc ctttcaagag ctcctgccc atggtaacc ctgatgaccc
tgtgttcggg 420

ggctgggaca ttagcaacat gaacctggct gatgctatga ccagggccaa
ggtgctggac 480

attgatctgc agaaggcagct taggccttac atggagtctt ggtgcctctc
cctggcatct 540

atgatcccga cttcatcgcc gctaaccagg gatccgcgc gaacaatgtc
atcaaggaa 600

ccaagaagga gcagatgggg cagatcatca aaggacatca gggagttcaa
ggaaaataac 660

aaaatggaca aggcggtggt gttgtggact gcaaacactg aaaggtacaa
caattgtctg 720

tgtttggct taatgaccaa tggaaaacct tctgcgtctg tggacaggaa
ccaggcggag 780

atatcgccat cgacattgtt ttgcattgc cttgcttcat tggagggtgt
ccgttcaata 840

acgggagccc taaaaaaaaa atcttggcct ggaattgacg atcttgcatt
taaaaaaaaaa 900

ctgcctgatc cggggggatt aattcaaaaa aggggcaaac caaaaaaaaaa
aaccggcttg 960

gttgatttcc tcatgggtgc tggataaaag cccacctcaa ttgtcagtt
caaccacttg 1020

gggaataatg atggcacgaa ctttctgctg ccgcaaacat tccgatccaa
ggagatctcc 1080

aaaagcagcg tggtcgatga catggtctca agcaatgcta tcctctacga
gcctggcgag 1140

catcctgatc atgttgcgt gattaagtat gtgccgtacg tcggagacag
caagaggccc 1200

atggatgagt acacccaga gatcttcatg ggggttaaga acaccatcgt
gctgcacaac 1260

acctgcgagg actcgctcct tgctgcacca atcattctt acctgggtgt
cctggccgag 1320

ctcagacta ggattcagct gaaaggcgag ggagaggaga aattccattc
cttccatcca 1380

gtggctacca tcctgagcta cctcaccaag gcgc(cc)ttg ttcc(t)cctgg
cacaccagtg 1440

gtgaacgccc tggcgaagca gagggctatg ctcgagaaca tcatgagggc
ctgcgttggg 1500

ctggcccctg agaacaacat gatcctggag tacaag
1536

<210> 2

<211> 510

<212> PRT

<213> Oryza sativa

<220>

<400> 2

Met Phe Ile Glu Ser Phe Arg Val Glu Ser Pro His Val Arg Tyr
Gly
1 5 10 15

Ala Ala Glu Ile Glu Ser Asp Tyr Gln Tyr Asp Thr Thr Glu Leu
Val
20 25 30

His Glu Ser His Asp Gly Ala Ser Arg Tyr Ile Val Arg Pro Lys
Ser
35 40 45

Val Arg Tyr Asn Phe Arg Thr Thr Thr Val Pro Lys Leu Gly
Val
50 55 60

Met Leu Val Gly Tyr Gly Gly Asn Asn Gly Ser Thr Leu Thr Ala
Gly
65 70 75
80

Val Ile Ala Asp Arg Glu Gly Ile Ser Trp Ala Thr Lys Asp Lys
Val
85 90 95

Gln Gln Ala Asn Tyr Tyr Gly Ser Leu Thr Gln Ala Ser Thr Ile
Arg 100 105 110

Val Gly Ser Tyr Asn Gly Glu Glu Ile Tyr Ala Pro Phe Lys Ser
Leu 115 120 125

Leu Pro Met Val Asn Pro Asp Asp Leu Val Phe Gly Gly Trp Asp
Ile 130 135 140

Ser Asn Met Asn Leu Ala Asp Ala Met Thr Arg Ala Lys Val Leu
Asp 145 150 155

Ile Asp Leu Gln Lys Gln Leu Arg Pro Tyr Met Glu Ser Met Val
Pro 160 165 170 175

Leu Pro Gly Ile Tyr Asp Pro Asp Val Ile Ala Ala Asn Gln Gly
Ser 180 185 190

Arg Ala Asn Asn Val Ile Lys Gly Thr Lys Lys Glu Gln Met Glu
Gln 195 200 205

Ile Ile Lys Asp Ile Arg Glu Phe Lys Glu Lys Ser Lys Val Asp
Lys 210 215 220

Val Val Val Leu Trp Thr Ala Asn Thr Glu Arg Tyr Ser Asn Val
Cys 225 230 235

240

Val Gly Leu Asn Asp Thr Met Glu Asn Leu Leu Ala Ser Val Asp
Lys 245 250 255

Asn Glu Ala Glu Ile Ser Pro Ser Thr Leu Tyr Ala Ile Ala Cys
Val 260 265 270

Met Glu Gly Ile Pro Phe Ile Asn Gly Ser Pro Gln Asn Thr Phe
Val

275	280	285
Pro Gly Leu Ile Asp Leu Ala Ile Lys Asn Asn Cys Leu Ile Gly Gly		
290	295	300
Asp Asp Phe Lys Ser Gly Gln Thr Lys Met Lys Ser Val Leu Val Asp		
305	310	315
320		
Phe Leu Val Gly Ala Gly Ile Lys Pro Thr Ser Ile Val Ser Tyr Asn		
325	330	335
His Leu Gly Asn Asn Asp Gly Met Asn Leu Ser Ala Pro Gln Thr Phe		
340	345	350
Arg Ser Lys Glu Ile Ser Lys Ser Asn Val Val Asp Asp Met Val Ser		
355	360	365
Ser Asn Ala Ile Leu Tyr Glu Leu Gly Glu His Pro Asp His Val Val		
370	375	380
Val Ile Lys Tyr Val Pro Tyr Val Gly Asp Ser Lys Arg Ala Met Asp		
385	390	395
400		
Glu Tyr Thr Ser Glu Ile Phe Met Gly Gly Lys Ser Thr Ile Val Leu		
405	410	415
His Asn Thr Cys Glu Asp Ser Leu Leu Ala Ala Pro Ile Ile Leu Asp		
420	425	430
Leu Val Leu Leu Ala Glu Leu Ser Thr Arg Ile Gln Leu Lys Ala Glu		
435	440	445
Gly Glu Glu Lys Phe His Ser Phe His Pro Val Ala Thr Ile Leu Ser		
450	455	460

Tyr	Leu	Thr	Lys	Ala	Pro	Leu	Val	Pro	Pro	Gly	Thr	Pro	Val	Val
Asn														
465				470						475				
480														
Ala	Leu	Ala	Lys	Gln	Arg	Ala	Met	Leu	Glu	Asn	Ile	Met	Arg	Ala
Cys														
		485						490					495	
Val	Gly	Leu	Ala	Pro	Glu	Asn	Asn	Met	Ile	Leu	Glu	Tyr	Lys	
		500						505					510	
<210>	3													
<211>	512													
<212>	PRT													
<213>	Porteresia coarctata													
<220>														
<400>	3													
Met	Phe	Ile	Glu	Ser	Phe	Arg	Val	Glu	Ser	Pro	His	Val	Arg	Tyr
Gly														
	5							10					15	
Ala	Ala	Glu	Ile	Glu	Ser	Glu	Tyr	Arg	Tyr	Asp	Thr	Thr	Glu	Leu
Val														
	20						25						30	
His	Glu	Ser	His	Asp	Gly	Ala	Ser	Arg	Trp	Val	Val	Arg	Pro	Lys
Ser														
	35					40						45		
Val	Gln	Tyr	His	Phe	Arg	Thr	Ser	Thr	Thr	Val	Pro	Lys	Leu	Gly
Val														
	50					55				60				
Met	Leu	Val	Gly	Trp	Gly	Gly	Asn	Asn	Gly	Ser	Thr	Leu	Thr	Ala
Gly														
	65				70					75				
80														
Val	Ile	Ala	Ser	Arg	Glu	Gly	Ile	Ser	Trp	Ala	Thr	Lys	Asp	Lys
Val														
	85						90						95	

Gln Gln Ala Asn Tyr Tyr Gly Ser Leu Thr Gln Ala Ser Thr Ile
Arg 100 105 110

Val Gly Ser Tyr Asn Gly Glu Glu Ile Tyr Ala Pro Phe Lys Ser
Leu 115 120 125

Leu Pro Met Val Asn Pro Asp Asp Leu Val Phe Gly Gly Trp Asp
Ile 130 135 140

Ser Asn Met Asn Leu Ala Asp Ala Met Thr Arg Ala Lys Val Leu
Asp 145 150 155

Ile Asp Leu Gln Lys Gln Leu Arg Pro Tyr Met Glu Ser Trp Cys
Leu 165 170 175

Ser Leu Ala Ser Met Ile Pro Thr Ser Ser Pro Leu Thr Arg Asp
Pro 180 185 190

Ala Arg Thr Met Ser Ser Arg Glu Pro Arg Arg Ser Arg Trp Gly
Arg 195 200 205

Ser Ser Lys Asp Ile Arg Glu Phe Lys Glu Asn Asn Lys Met Asp
Lys 210 215 220

Ala Val Val Leu Trp Thr Ala Asn Thr Glu Arg Tyr Asn Asn Cys
Leu 225 230 235

Cys Leu Gly Leu Met Thr Asn Gly Lys Pro Ser Ala Ser Val Asp
Arg 245 250 255

Asn Gln Ala Glu Ile Ser Pro Ser Thr Leu Tyr Cys His Cys Leu
Ala 260 265 270

Gly Glu Gly Glu Glu Lys Phe His Ser Phe His Pro Val Ala Thr
Ile

450 455 460

Leu Ser Tyr Leu Thr Lys Ala Pro Leu Val Pro Pro Gly Thr Pro
Val

465 470 475
480

Val Asn Ala Leu Ala Lys Gln Arg Ala Met Leu Glu Asn Ile Met
Arg

485 490 495

Ala Cys Val Gly Leu Ala Pro Glu Asn Asn Met Ile Leu Glu Tyr
Lys

500 505 510